RAW SEQUENCE LISTING PATENT APPLICATION US/08/882,431

DATE: 02/09/98 TIME: 11:29:54

INPUT SET: S23303.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

#4

```
1
                                        SEQUENCE LISTING
  2
      (1)
             General Information:
      (i) APPLICANT: Robert G. Ulrich,
                                                           ENTERED
  5
     Mark A. Olson
     Sina Bavari
     (ii) TITLE OF INVENTION: Bacterial Superantigen
  8
                                                               RECEIVED
  9
 10
 11
     (iii) NUMBER OF SEQUENCES:16
                                                                FEB 2 6 1993
 12
     (iv) CORRESPONDENCE ADDRESS:
 13
 14
     (A) ADDRESSEE: John Moran
                                                             Market Street 12:19
     (B) STREET: US Army MRMC -504 Scott Street MCMR-JA (John Moran-Patent Atty)
 15
16
     (C) CITY: FORT DETRICK
17
     (D) STATE: MARYLAND
18
     (E) COUNTRY: USA
     (F) ZIP: 21702-5012
19
20
21
     (V) COMPUTER READABLE FORM:
22
     (A) MEDIUM TYPE: Floppy disk
23
     (B) COMPUTER: Apple Macintosh
24
     (C) OPERATING SYSTEM: Macintosh 7.5
     (D) SOFTWARE: Microsoft Word 6.0
25
26
27
     (Vi) CURRENT APPLICATION DATA:
28
     (A) APPLICATION NUMBER: 08/882,431
29
     (B) FILING DATE: June 25, 1997
     (C) CLASSIFICATION:
30
31
32
     (vii) PRIOR APPLICATION DATA:
33
     (A) APPLICATION NUMBER:
34
     (B) FILING DATE:
35
36
     (Viii) ATTORNEY/AGENT INFORMATION:
37
     (A) NAME: Moran, John
38
     (B) REGISTRATION NUMBER: 26,313
39
     (C) REFERENCE/DOCKET NUMBER:
40
    (ix) TELECOMMUNICATION INFORMATION
41
42
    (A) TELEPHONE: (301) 619-2065
43
    (B) TELEFAX: (301) 619-7714
45
    (2) INFORMATION FOR SEQ ID NO:1:
    (i) SEQUENCE CHARACTERISTICS:
```

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47 (A) LENGTH:	830	
40 (B) TYPE: N	ucleic Acid	
49 (C) STRANDE	DNESS: Unknown	
50 (D) TOPOLOG	rr po myde r · NNA	
51 (11) MOLECO	ICE DESCRIPTION: SEQ ID NO:1:	
	cagcatttac attactttta ttcattgccc	40
	aacaagtcca cttgtaaatg gtagcgagaa	80
	ataaatgaaa aagatttgcg aaaaaagtct	120
	gaacagettt aggeaatett aaacaaatet	160
	tgaaaaagct aaaactgaaa ataaagagag	200
63 64 tcacgatcaa	tttcgacagc atactatatt gtttaaaggc	240
	atcattcgtg gtataacgat ttattagtac	280
	: aaaggatatt gttgataaat ataaagggaa	320
	: ttgtatggtg cttatgctgg ttatcaatgt	360
	a caccaaacaa aacagcttgt atgtatggtg	400
	t acatgataat aatcgattga ccgaagagaa	440 480
76 aaaagtgccg	g atcaatttat ggctagacgg taaacaaaat	520
78 acagtaccti	t tggaaacggt taaaacgaat aagaaaaatg	
	a ggagttggat cttcaagcaa gacgttattt	560
	a tataatttat ataactctga tgtttttgat	600
	c agaggggatt aatcgtgttt catacttcta	640
85 86 cagaacctt	c ggttaattac gatttatttg gtgctcaagg	680
	ca aatacactat taagaatata tagagataat	720
	ta actctgaaaa catgcatatt gatatatatt	760
	ag ttaaACATGG TAGTTTTGAC CAACGTAATG	800
93 94 TTCAGATT	AT TATGAACCGA GAATAATCTA	830
95	RMATION FOR SEQ ID NO:2:	
96 (2) INFO	ENCE CHARACTERISTICS:	
OR (A) LENG'	TH: 257	
99 (B) TYPE	: Amino Acid	

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100	(C) STRANDEDNESS: Unknown
101	(D) TOPOLOGY: Unknown
102	(ii) MOLECULE TYPE: Peptide
103	(xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
104	
105	Met Lys Lys Thr Ala Phe Thr Leu Leu Leu
106	1 5 10
107	
108	Phe Ile Ala Leu Thr Leu Thr Thr Ser Pro
109	15 20
110	
111	Leu Val Asn Gly Ser Glu Lys Ser Glu Glu
112	25 30
113	
114	Ile Asn Glu Lys Asp Leu Arg Lys Lys Ser
115	35 40
116	•
117	Glu Lys Gln Gly Thr Ala Leu Gly Asn Leu
118	45 50
119	
120	Lys Gln Ile Tyr Tyr Tyr Asn Glu Lys Ala
121	55 60
122	
123	Lys Thr Glu Asn Lys Glu Ser His Asp Gln
124	65 70
125	_,
126	Phe Arg Gln His Thr Ile Leu Phe Lys Gly
127	. 75 80
128	- 1 -1
129	Phe Phe Thr Asp His Ser Trp Tyr Asn Asp
130	85 90
131	Tour Tour Hall and Indian
132 133	Leu Leu Val Arg Phe Asp Ser Lys Asp Ile
134	95 100
135	Vol Aco Ive How to el a
136	Val Asp Lys Tyr Lys Gly Lys Lys Val Asp
137	105 110
138	Lau Tur Clu Ala Mara Ala Glassa
139	Leu Tyr Gly Ala Tyr Ala Gly Tyr Gln Cys 115
140	115 120
141	Ala Cly Cly The Dho Ace Two The al
142	Ala Gly Gly Thr Phe Asn Lys Thr Ala Cys
143	125 130
144	Met Tyr Gly Gly Val Thr Leu His Asp Asn
145	3.25
146	135 140
147	Asn Arg Leu Thr Glu Glu Lys Lys Val Pro
148	
149	145 150
150	Ile Asn Leu Trp Leu Asp Gly Lys Gln Asn
151	
152	155 160
_	

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		_			_	_	_			_	
153	Thr	Val	Pro	Leu		Thr	Val	Lys	Thr		
154					165					170	
155			_	-			·		_		
156	Lys	Lys	Asn	Val		Val	GIn	GLu	Leu	_	
157					175					180	
158											
159	Leu	Gln	Ala	Arg	Arg	Tyr	Leu	Gln	Glu	Lys	
160					185					190	
161											
162	Tyr	Asn	Leu	Tyr	Asn	Ser	Asp	Val	Phe	Asp	
163					195					200	
164											
165	Gly	Lys	Val	Gln	Arg	Gly	Leu	Ile	Val	Phe	
166	_	-			205	_				210	
167											
168	His	Thr	Ser	Thr	Glu	Pro	Ser	Val	Asn	Tvr	
169					215					220	
170											
171	Asp	Leu	Phe	Gly	Ala	Gln	Glv	Gln	Tvr	Ser	
172	шр			0_7	225		1		- 3 -	230	
173					223					200	
174	Δen	Thr	T.011	leu	Δra	Tle	ጥህዮ	Δra	Asn	Δsn	
175	ASII	1111	пец	Teu	235	110	- 7 -	Arg	изъ	240	
176					233					240	
177	Luc	mb x	т1а	asn	Sor	Glu	Nen	Mot	Hie	Tla	
178	гуѕ	1111	TTE	asii	245	GIU	MSII	Mec	птэ	250	
					243					230	
179	3	~1 -	m	T	m	mb	a				
180	Asp	тте	Tyr	Leu	_	THE	ser				
181					255						
182						CEO.	TD .	TO - 2	_		
183				rion					:		
184		_		E CHA	ARAC:	LEKT	STICE	S :			
185		LEN									
186				ıclei							
187				DNESS			٧n				
188				Y: Ur							
189	•	•		LE TY						_	
190	(xi) SE(QUEN	CE DI	ESCR:	[PTI	ON: S	SEQ :	ID NO	0:3:	
191											
192	atg	agaaa	aag	cgaag	gaaa	ta aa	atgaa	aaaa	g ati	ttgcgaaa	40
193											
194	aaa	gtct	gaa '	ttgca	aggga	aa ca	agcti	ttag	g caa	atcttaaa	80
195											
196	Caa	atcta	att a	attad	caato	ga aa	aaago	ctaaa	a act	tgaaaata	120
197											
198	aaga	agagt	tca d	cgato	caati	tt c	gacag	gcata	a cta	atattgtt	160
199											
200	taaa	aggct	ttt ·	tttad	cagat	tc at	ttcg1	tggta	a taa	acgattta	200
201					-						
202	tta	gtace	gtt ⁻	ttgat	ttcaa	aa go	gatai	ttgt [.]	t gat	taaatata	240
203				-		٠.		-	-		
204	aaq	ggaaa	aaa a	agtad	gacti	tg ta	atggi	tgct	t ato	gctggtta	280
205	J.	-		- •	-	-		_			

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DATE: 02/09/98 TIME: 11:30:16

206 207	tcaatgtgcg ggtggtacac caaacaaaac agcttgtatg	320
208 209	tatggtggtg taacgttaca tgataataat cgattgaccg	360
210 211	aagagaaaaa agtgccgatc aatttatggc tagacggtaa	400
212 213	acaaaataca gtacctttgg aaacggttaa aacgaataag	440
214 215	aaaaatgtaa ctgttcagga gttggatctt caagcaagac	480
216 217	gttatttaca ggaaaaatat aatttatata actctgatgt	520
218 219	ttttgatggg aaggttcaga ggggattaat cgtgtttcat	560
220 221	acttctacag aaccttcggt taattacgat ttatttggtg	600
222 223	ctcaaggaca gtattcaaat acactattaa gaatatatag	640
224 225	agataataaa acgattaact ctgaaaacat gcatattgat	680
226 227	atatatttat atacaagtta aACATGGTAG TTTTGACCAA	720
228 229	CGTAATGTTC AGATTATTAT GAACCGAGAA TAATCTA	757
230	(2) INFORMATION FOR SEQ ID NO:4:	
231	(i) SEQUENCE CHARACTERISTICS:	
	(1) Digolica Ciminolilitatica.	
232		
232	(A) LENGTH:233	
233	(A) LENGTH:233 (B) TYPE: Amino Acid	
233 234	(A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown	
233 234 235	(A) LENGTH: 233(B) TYPE: Amino Acid(C) STRANDEDNESS: Unknown(D) TOPOLOGY: Unknown	
233 234 235 236	 (A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide 	
233 234 235 236 237	(A) LENGTH: 233(B) TYPE: Amino Acid(C) STRANDEDNESS: Unknown(D) TOPOLOGY: Unknown	
233 234 235 236 237 238	(A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:	
233 234 235 236 237 238 239	(A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys	
233 234 235 236 237 238 239 240	(A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:	
233 234 235 236 237 238 239	(A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys	
233 234 235 236 237 238 239 240	(A) LENGTH:233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10	
233 234 235 236 237 238 239 240 241	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly	
233 234 235 236 237 238 239 240 241 242	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly	
233 234 235 236 237 238 239 240 241 242 243	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20	
233 234 235 236 237 238 239 240 241 242 243 244	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr	
233 234 235 236 237 238 239 240 241 242 243 244 245	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr	
233 234 235 236 237 238 239 240 241 242 243 244 245 246	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40 Lys Glu Ser His Asp Gln Phe Arg Gln His	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 250 251 252	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 250 251 252 253	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40 Lys Glu Ser His Asp Gln Phe Arg Gln His 45 50	
233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 250 251 252 253 254	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40 Lys Glu Ser His Asp Gln Phe Arg Gln His 45 50 Thr Ile Leu Phe Lys Gly Phe Phe Thr Asp	
233 234 235 236 237 238 239 241 242 243 244 245 246 247 248 250 251 252 253 255	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40 Lys Glu Ser His Asp Gln Phe Arg Gln His 45 50	
233 234 235 236 237 238 240 241 242 243 244 245 246 247 248 251 252 253 255 256	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40 Lys Glu Ser His Asp Gln Phe Arg Gln His 45 50 Thr Ile Leu Phe Lys Gly Phe Phe Thr Asp 55 60	
233 234 235 236 237 238 239 241 242 243 244 245 246 247 248 250 251 252 253 255	(A) LENGTH: 233 (B) TYPE: Amino Acid (C) STRANDEDNESS: Unknown (D) TOPOLOGY: Unknown (ii) MOLECULE TYPE: Peptide (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4: Met Glu Lys Ser Glu Glu Ile Asn Glu Lys 5 10 Asp Leu Arg Lys Lys Ser Glu Lys Gln Gly 15 20 Thr Ala Leu Gly Asn Leu Lys Gln Ile Tyr 25 30 Tyr Tyr Asn Glu Lys Ala Lys Thr Glu Asn 35 40 Lys Glu Ser His Asp Gln Phe Arg Gln His 45 50 Thr Ile Leu Phe Lys Gly Phe Phe Thr Asp	

SEQUENCE VERIFICATION REPORT PATENT APPLICATION US/08/882,431

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